

Notice of Allowability

Application No.

09/641,589

Examiner

Jason M. Borlinghaus

Applicant(s)

COOPER ET AL.

Art Unit

3693

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/19/06.
2. ☒ The allowed claim(s) is/are 1-3.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Allowable Subject Matter

Claims 1 –3 are allowed.

The following is a statement of reasons for indication of allowable subject matter.

The prior art fails to teach, or suggest, the limitations of:

“the computations including

a smoothing operation performed on the option price data as a function of the corresponding strike price, the operation performed on implied values of a volatility parameter at varying strike prices in the Black-Scholes option pricing formula,

a first derivative operation on a result of the smoothing to obtain a first probability distribution, and

adding a risk premium to the first probability distribution to obtain a second probability distribution” (as in independent Claim 1).

Claims 2 – 3 are dependent upon Claim 1.

Shlafmann (PG Pub. 2002/0065755) discloses a method for receiving data representing current prices of options on a given asset and performing computations upon such data to derive a density function, “which is indicative of a probability distribution of the [asset] value at a first time in the future.” (see abstract). Neither this patent, alone nor in combination with others, disclose nor teach the feature of performing a smoothing operation as a function of the strike price, said operation

Art Unit: 3693

performed on implied values of a volatility parameter nor adding a risk premium to the first probability distribution to obtain a second probability distribution.

Disclosed Prior Art, which references Jackwerth (Jackwerth, Jens Carsten & Rubenstein, Mark. Recovering Probability Distributions from Option Prices. The Journal of Finance. Vol. LI, no. 5, December 1996. pp. 1611 – 1631), discloses a method for “recovering the risk-netral probability distribution of an underlying asset price from the contemporaneous prices of its associated options” (see Jackwerth, p. 1614). Neither this non-patent literature, alone nor in combination with others, disclose nor teach the feature of performing a smoothing operation as a function of the strike price, said operation performed on implied values of a volatility parameter nor adding a risk premium to the first probability distribution to obtain a second probability distribution.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Borlinghaus whose telephone number is (571) 272-6924. The examiner can normally be reached on 8:30am-5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Kramer can be reached on (571) 272-6783. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3693

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

 3/13/07
JAMES A. KRAMER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600